ON SCENE

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ON SCENE

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CHIEF, OFFICE OF NAVIGATION SAFETY
AND WATERWAY SERVICES
UNITED STATES COAST GUARD
WASHINGTON, DC 20593-0001

February 26, 1991

Dear "On Scene" Readers,

Recent events have again highlighted the dedication and the sacrifices sometimes required of those who choose lifesaving as a vocation. On 11 January 1991, Machinery Technician First Class Charles Sexton, an instructor at our National Motor Lifeboat School in Ilwaco, Washington, tragically lost his life while responding to a SAR case off the Columbia River bar.

As we move into another boating season, let us reflect on Petty Officer Sexton's ultimate sacrifice. His example ... a selfless devotion to duty ... is an inspiration to all of us in the Search and Rescue community. Regardless of whether our job is in a boat or aircraft, or involves planning or support, people's lives ARE at stake. Because of this, the requirements of the job are among the highest of any profession. So are the rewards. Therefore, in the daily performance of our duties as lifesavers, let us honor Petty Officer Sexton and all the others that have given their lives so that others may live ... by never giving less than our very best.

SEMPER PARATUS!

J. W. LOCKWOOD
Captain, U. S. Coast Guard

Letters to the Editor

As I start my first tour in the Coast Guard I find myself as the editor of ON SCENE magazine (scary huh?). I'm relieving LTJG Schilling who is now on the USCGC ESCANABA.

My job entails putting together "ON SCENE" magazine and SLJO duties. I want to emphasize the importance of communicating your thoughts and opinions through the "Letters to the Editor". The Authors and many others do take note of your comments. Your opinions and constructive ideas are welcomed! Please pass them along.

JAMES J. SZRAMA ENS USCGR

(202) 267-1876

Dear ON SCENE Editor:

I just finished your article concerning boat crew professionalism and thought I would make a few comments.

I'm glad to hear that G-NRS is taking a closer look at station work load. It is not just the day to day routine, but supplying color details, work parties for community projects (YOU tell the Group Commander you can't provide the people!), training reserves, training Coast Guard Academy Cadets, and working with the Coast Guard Auxiliary that takes up a lot of time. I am one of those stations that has assigned an administrative petty officer and also a supply petty officer (both BM1's).

Concerning port and starboard duty - well, my station is authorized 40 people. Authorized, but not on board. Of those on board, yes, I grant leave, send people to school, and TRAIN! Again, just because I have 40 people authorized, that does not mean they are aboard and TRAINED to do the job! This goes along with having an admin and supply PO. We must train our people for their next job - which may be XPO aboard an 82 ft. WPB, an ANT, or XPO at a SAR station.

I cannot afford to have the OOD be the duty coxswain having two seasonal SAR detachments. I need a minimum of six qualified boat crews (44 and 41) plus OOD's and communications watchstanders

to handle radio comms for the two SARDETs. We also handle radio/message for the ANT which is co-located with us.

I do understand that your article was "generic" in nature and does not cover every station or situation. Anyway, thanks for listening.

CWO R. J. HARKO
USCG Station Grand Haven, MI

I just read the new ON SCENE(3/90) magazine and am concerned about their potential legal implications. The first article appears on page 10 and deals with Coastal WARNING Flags. My concern is that if a district, or for that matter the entire Coast Guard, does not require all units to display the flags, then we are setting ourselves up for a lawsuit involving the unit which was not authorized and *did* not display them. The current civilian legal climate is ensuring that "tradition" has no place in Coast Guard operations.

Secondly, the article on page 19 concerning "Cold Water Recovery" has legal implications as well. The Coast Guard is now in possession of information which if followed could save a life; or, if not followed could contribute to a death. Will the Coast Guard continue to publish voluntary "guidelines" or will they mandate specific actions? I hope your article is in the next issue of Flight Lines or addressed at the upcoming Aviation Command and Safety Workshop in March.

CDR JOHN W. WHITEHOUSE
USCG

P.S. I continue to cringe when I see the word "enroute" published in a Coast Guard publication, yours included. Every time I see it I check the dictionary and always find the correct spelling as "en route". Please note the space between the "n" and the "r". The military seems to do a good job of bastardizing good French words and then perpetuating their mistakes.

Gentlemen:

I'm writing in response to the article on Boat Crew Professionalism written in your On Scene Pub 3/90.

We are a 25 man station as illustrated in the article. There were three items not addressed concerning port & stbd versus 1 in 3 or 1 in 4 rotation. These are the number of personnel in a break-in status at any given time, the fact I'm seldom at billet strength, and included in that number of 25 people are 3 L/E deployables.

Here is the current situation at my unit. I'm billeted for 25 persons but only have 22 aboard (this includes two L/E deployables). Eight of those 22 are not qualified as boat crewmen. There are three people ordered in at the end of this month. This will bring me up to billet strength but I'll have 11 persons not qualified as crewman. I currently have only two qualified boat engineers. The rest of my engineers just reported aboard over the last few months, and are in the crewman qualification process. This includes my EPO. I now have three qualified coxswains not including the XPO. This is a first in the 1 1/2 years I've been here.

Another problem is the last 10 people reporting in had no previous small boat experience. This greatly lengthens the time it takes to get them qualified.

During a November District wide CO/OINC conference, it was determined that 8 of 14 stations represented were not staffed to meet a 1 in 3 rotation.

D. K. PARKS
St. Simons Island

ON SCENE MAGAZINE

Two articles in the 3/90 issue of "ON SCENE" prompted me to give my two cents worth. Having just completed three years as CO, Station Sandy Hook, I spent a lot of time trying to tame the port and starboard beast. I totally agree that port and starboard is a very inefficient watch rotation. We were only partially successful implementing the 1 - 3 rotation for a number of reasons. The main reasons were qualifications and training. In the summer we were a two B - 0 station. That means you need at least six coxswains, six engineers, and twelve boat

crew. This gives you a four man boat crew and they can never be on leave, sick or at the doctor. I disagree that a 41 needs only three crew – the only reason we believe it is because it was written that way long ago and nobody changed it. There are too many instances where mission accomplishment requires at least four people. To do otherwise, except on the most simple case, (and how do you know it will be simple until it is over?) is inviting trouble. We cannot overlook the fact that we will be doing boardings and, unless tied to the dock, you invite danger by either sending a one man boarding party (unacceptable) or leaving just the coxswain on board (dangerous). Remember that the 24 people needed for boat crew must not only be boat qualified but weapons and L/E qualified. Even with a large station it is difficult to maintain that many personnel current in all respects with transfers, new personnel with zero training, personnel who can't qualify or take a long time. Leave, and the administrative requirements (mess cooks, cooks, command staff, etc.) all add up. We decided that we couldn't do 1 in 3 in the summer.

In the winter, when we went to a one B – 0 requirement, we were able to do a somewhat modified 1 in 3 rotation which worked pretty well. The only problem then was that people take the leave they couldn't in the summer, extra training quotas came up, etc. which eroded the number of people you had to work with. We managed but it took quite a bit of time to make 1 in 3 work. Unfortunately, one year a MARDEZ exercise that increased our requirements made us go back to port and starboard. Perhaps an unplanned occurrence, but never the less a reality. On a different note, it was personally difficult to make a switch from port and starboard to 1 in 3 when you knew it would mean BM3 Gooblatz with his wife and two kids would have to give up his part time job. What we pay our enlisted people is so little these part time jobs are almost a necessity. My XPO, an E-7 over 18 years, with a wife and two kids qualified for various welfare programs. This is not right. I am not saying that 1 – 3 is impossible; we did it with the staff we had but it was a management challenge. The extra productivity that results from this schedule is excellent and made the effort worth it. If the northern districts got the extra L/E billets for the stations like the southern districts, then this schedule would be more manageable. Just a few extra people can make the difference on this schedule.

When are we going to stop looking at a station from a SAR point of view? We guage everything from readiness requirements to staffing and budgets around SAR. There needs to be an office in headquarters that looks over tasks and protects stations with all mission requirements. All the "operational" programs (M L/E, ATON, Readiness, and SAR) task a station individually and independently. We say we are a multi-mission station, yet are staffed for just SAR. If you are in an area with a lot of "M" functions (we were) you end up running patrols around the clock and burning up boat crews when your SAR readiness says you should be able to easily go one in three. The same goes for a busy L/E area. I can't figure out why all Coast Guard operations are not under one office.

My point is this; lets get the stations staffed for the multi-mission they actually perform. A station is not a bunch of people sitting around the TV room waiting for the SAR alarm to go off. This is a common misconception that many people have. Lets compare boat hours, not how many SAR cases you have, and look at when the boat hours happened and determine readiness requirements based on that. Also, having been the senior controller at an OPCEN(not a RCC) for four years, I think a SAR controller award is inappropriate. As much blood, sweat, and tears goes into a L/E search or pollution response as a SAR case. Lets vent our stove pipes (TQM) and look at the whole job that needs to be done. If you want to give an OPCEN controller award that's fine with me.

P. J. HOPKINSON

Dear ON SCENE Editor:

A recent article on Boatcrew Professionalism and another on Staffing Standards, once again have demonstrated the basic problem facing many stations and I believe other units. You have been attempting to show higher authorities that to achieve Boatcrew Professionalism, especially in a three or four section rotation, you must billet units, at a minimum, according to the staffing standards. Once the staffing standards are achieved, then special consideration for additional billets must be investigated based on additional operational needs within that units area of responsibility.

Small town stations with sound commercial

services, maintenance free facilities, level case loads, few marine events, and average LE operations differ from big city stations with heavier loads. Other factors that affect station billets are the administrative workload, Reserve and Auxiliary training and ops, station security, and communications that need the attention of underway OOD's.

To accomplish sound Boatcrew Professionalism we need quality management practices that are not based on robbing Peter to pay Paul. Boatcrew Professionalism is not just the underway skills of a coxswain, the technical abilities of an engineer, or the creativity of a C.O. to accomplish missions with minimum resources. Boatcrew Professionalism is a combination of all these elements. The need to standardize duty rotation at all stations must first be met by providing the units with staffing, administrative, and operational standards consistent throughout the Coast Guard.

BMC William Ferroli
OinC, Station Calumet Harbor
Chicago, IL

Dear ON SCENE Editor:

The following comments are submitted in answer to CWO Jake Miller's Boat Crew Professionalism column in the 3/90 edition. I specifically wish to comment on the port and starboard duty rotation vs the 1 - 3 or 1 - 4 issue

While I agree in principle that port and starboard can be inefficient, your argument for an alternate duty schedule hinges on several crucial factors. First it requires that all billets be filled and secondly, that all personnel be qualified to perform the duties of that billet. There is also very little leeway for leave, special liberty, illness, TAD, etc. With the reduced number of watchstanders and boat crewmembers available in a section, crew fatigue can be a major factor.

With less personnel on duty at any given time, the ability to respond to different situations is severely hampered. As we continue to get more involved in MLE, a duty section that can only respond with a three man crew is not only UNSAT but dangerous. Where do we get the extra crewmember for the 44' MLB? Do we only provide that crewman when heavy weather is predicted? If we are on an L/E patrol, do we recall someone from another section? Anytime a boat is underway they should be ready to perform an L/E mission.

Some units may be small enough that the cook or other admin. personnel (if a unit is lucky enough to have admin. personnel) can stand duty. Cooks pull their own weight by doing their job. If they are standing duty the quality and timeliness of the meals can go down, as will morale. It can work but it can be more trouble than it's worth.

I found it refreshing that someone in Headquarters actually acknowledged the existence of station OOD's. Many years ago, as a young boatswains mate I stood duty coxswain and OOD right here at this very station and, it worked. However, back in ancient times we ran around 300 SAR cases annually, and they were usually cut and dried. Now we handle about 500 cases annually and are involved in MLE(whether G-NRS wants to admit it or not). Boardings are now very different from the recreational boating safety boardings we used to do. We also have many commercial salvors to contend with.

Station OOD's must handle these and many other types of situations. The CO/OinC or XPO can't always be there. If the OOD is underway as a cox'n or engineer we most likely have a SA or FA left behind to "handle the load" . These days, when many of our operations are driven by public relations or political decisions, that nonrate is not the person we want left in charge. The group OPCEN controller can not always handle the situation either, particularly if there are multiple cases going on at various ends of the group.

The mythical station used as an example has a one boat B-O requirement. Many units in this District have a two boat requirement on weekends and holidays during SAR season with no increase in personnel. That makes everything but P & S very difficult to run. Use of the OOD as a coxswain is difficult because there are more boats and cases to keep track of including four or five auxiliary vessels. I have had some weekends where we've had three people on watch trying to keep track of events. With a dedicated OOD there is a continuity to operations that would be lost if we were underway.

Being an OOD is an excellent training program en route to becoming an OinC or XPO. I learned a lot by being a cox'n but even more by being station

OOD. Most of the really fine Group OPCEN Controllers I've dealt with were competent because they were good station OOD's. The same holds true for the OinC or XPO of tomorrow. They are my OOD today. We micro-manage things too much in today's Coast Guard . Our senior enlisted personnel at stations (E-5,E-6) must not be afraid to make "Command Decisions".

A change in the duty schedule can be bad for morale as well as economically unfeasible. Many personnel are forced to live miles from the unit. Most only commute a few days a week. With other types of duty they would have to commute more often. Many use the liberty time to moonlight to help make ends meet or take care of the kids to avoid daycare costs. While this should not be an overriding concern, it is nevertheless a concern. The distances people live from the station also affect the ability to be able to quickly recall a boat crew in an emergency.

Many of us " Old Timers " are very resistant to change. Some might say, "The liberty has worked this way for years so why change it now?" While the mission has changed, more with less has become our watch phrase. Everyone wants us to do something more. One more report, or patrol or meeting can't really hurt, can it? Just because Headquarters hasn't tasked us to do something doesn't mean it shouldn't be done, or that someone else hasn't tasked us to do it. I would rather have a beefed up duty section ready to respond to most situations and lose a few man hours, than lose lives because we weren't ready. Often our only backup for SAR or LE is us. The next unit down the line is often too far away to respond in time.

For 200 years our motto has been SEMPER PARATUS, Always Ready, not partially ready for some other contingency. I like to think that those of us fortunate enough to have been chosen as a CO or OinC of a station know what we are doing. It takes a lot of experience and hard work to keep everything in balance. Port and starboard works. Other systems may offer some solutions but the juggling act sometimes required to cover all of your requirements might not be worth the few extra work hours gained.

As the commanding officer of this unit, I don't feel I can take a chance to cut my readiness posture that close. I owe my crew the best and safest work environment I possibly can. For this unit, port and starboard duty provides that. If we can cut down on some of the tasks placed on us, realistically and uniformly decide what an acceptable and safe readiness posture should be, as well as improve the assignment policies, it just might work. I will however, continue to have my doubts.

CWO A. C. BEAL
CO, CG Station Castle Hill

Dear ON SCENE Editor:

The statement "... co-location [sic] with a group office... additional engineering support is often available and may remove the requirement for a designated engineering petty officer billet" in the article entitled "Station Staffing - How do you compare to the standards?" (3/90 issue), certainly does not fit Group Sandy Hook, and may not fit other groups. Until a recent reprogramming, our Group Engineering had no(that's right, zero) MK billets assigned. We now have an MK2 to go along with our ENG4, DCC, and handful of DC and EM billets. Unfortunately, we have had to do the opposite of what is suggested in the article, and turn to Station Sandy Hook for engineering support of the Group!

The staffing standards manual says, in addition to the Engineering Officer, a group should have 1-CPO, either MK, EM, or DC,and 2-PO1 billets, one billet for each rating remaining. "It is envisioned that these billets, will provide expertise sufficient for the accomplishment of intermediate level maintenance through either supervision of unit work forces or outside contractor personnel, i.e. private or Coast Guard base/support center". The manual has the chapters for bases and support centers listed as "to be developed". We are not funded adequately to afford private contracting (please scrutinize the G-NRS figure of $22K per year per MLB/UTB for operation & maintenance). Therefore, we must do the maintenance work ourselves if it is going to get done.

The Group(groups?) doesn't have the expertise necessary to do the job right. Some of our DC and EM billets can be derived from section H of chapter 28 as "Housing Support and Maintenance" (another issue deserving a letter of its own). The rest of our engineering billets seem arbitrarily assigned, with no standard to back them up. Now we have minimally manned 110' WPB's with an engineering force that

can barely keep up with PMS, looking to the group for engineering support.

So, what's my beef? The staffing standards manual. It's out of date and out of touch. It doesn't accurately reflect the work being accomplished by our personnel; it's incomplete and doesn't adequately address maintenance billets at groups, bases and support centers. I can state unequivocally, if it wasn't for the support of the engineers at Station Sandy Hook, the group would not be able to provide the necessary expertise sufficient for the accomplishment of intermediate level maintenance. I wonder how many other groups are in the same boat?

CDR W. M. BANNISTER
Commander, Group Sandy Hook

Dear Editor,

I am writing to you in regards to the decommissioning of the United States Coast Guard Cutter FIR (WLM 212), tentatively scheduled for Fall 1991.

The USCGC FIR is currently the oldest Commissioned Coast Guard Cutter in active service. She was originally constructed in 1939 by Moore Dry Dock Company in Oakland, California for the U.S. Lighthouse Service as a 175 foot coastal bouy tender. She was commissioned as a Coast Guard Cutter on October 1, 1940 after the two services merged. Today, FIR is the sole remaining buoy tender of her class, and is the last Lighthouse Tender in the nation.

With the exception of one year in Long Beach, CA, FIR's homeport has been Seattle, WA. For more than 49 years, FIR has served the mariners in the waters of Puget Sound, the San Juan Islands, the Strait of Juan de Fuca, and along the Washington and Oregon coasts.

Those who have served aboard FIR are extremely proud of her, and affectionately refer to her as the "Old Girl". It is not uncommon to run across past FIR sailors who still think she is the best ship in the Coast Guard. It is obvious that these sailors cared a great deal. The ship looks better than ever and still performs her many missions as effectively as ever.

With the decommissioning ceremony so close at hand, I wish to get in touch with as many former FIR sailors as possible and with anyone interested in helping preserve FIR as an historical landmark and museum. Please contact one of the persons below for more information:

ENS Dan Travers	(206) 553-7348
	(206) 553-7349
LTJG Ben Tobias	(206) 553-5864

OR WRITE TO:
Commanding Officer
USCGC FIR (WLM 212)
2700 W. Commodore Way
Seattle, WA 98199-1234
Attn: ENS Travers

Thanks,
LCDR R. W. NUTTING
CO, USCGC FIR

About Letters to the Editor:

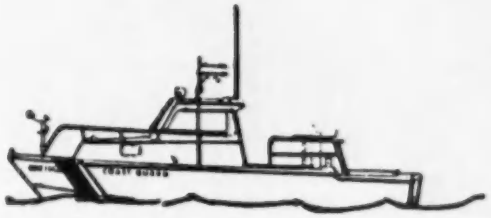
ON SCENE seek letters to the editor and will gladly publish them. Some rules do apply though.

1) The authors name, address, and telephone number must accompany letter.

2) If requested, the authors name will be withheld, but nameless letters will not be considered.

3) ON SCENE has the right to edit all letters for taste, grammar, and length.

Boat Crew Professionalism



By: CWO Jake Miller, (G-NRS-2)

First, I would like to thank all of you who responded by either phone or letter to my last column. All of those letters received before our deadline are printed in this issue's letters to the editor section. I truly enjoy each and every phone call, even when we don't agree, but a letter reaches a much wider audience. If you feel something is important - take time and put it in writing. We'll print it.

Evoking some response was, as some of you guessed, a major reason for writing the column; but it was not the only reason. The primary reason I wrote the column, was to reinforce the process of district/group/station people thinking creatively about station problems.

There are some things already going on. A couple of districts have undertaken their own studies and will be implementing changes based on them. People have started to ask some real questions regarding station mission priorities. Here at Headquarters a quality action team (see CDR Tinsman's article in this issue) was organized to analyze station workload and staffing and to make recommendations to the Operations Coordination Council and the Commandant. I believe, that with the interest being shown by our senior people, we just might see something come out of this.

With all of this going on I haven't had a lot of time to think about this issue's column, but there are three things I promised myself I would cover. The first is Surfmen. I hear there are a lot of requests for qualified Surfman to be assigned to districts other than the Thirteenth. I personally do not believe in "homeporting." I think well rounded sailers are necessary to a strong service. But if there is a real need outside of the Thirteenth for Surfmen, than the stations that need them should be instituting strong training programs to produce them.

I realize that some places don't always have the backup boats we would like for training. This is a problem, and it may take some considerable coordination between stations and groups to solve it. In some places it may not be possible. I do have a hard time following the argument that a station needs a surfman but doesn't have the conditions to train one. You just have to take advantage of every opportunity. If surf conditions are so minimal that you can't train someone, then assignments can not help you. You won't be able to keep your surfman current and in a year all you'll have is an exsurfman.

The next item is some changes in the training manuals. By the time this edition reaches you, you should have received the revised Boat Crew Training Manual, COMDTINST M16114.9B and change one to the Boat Crew Qualification Guide - Crewman, COMDTINST M16114.10. Take a good look at both of them so you will know what the new requirements are. In the Training Manual almost all of the changes were made to clarify and to streamline the documentation. The significant change to the Qual manual had to do with lessening the physical fitness requirement. This will probably make some people happy and others unhappy, but there was a lot of field pressure to do this. We do try to give you programs that work, but all take some fine tuning. Keep your suggestions for improvements coming. The wheels grind slow, but they do grind.

The last item I wanted to cover is the ordering of manuals. I am still getting requests. Now, I don't mind getting them, but I don't have any manuals to give you. If you receive your order form back with a message saying we are out of stock, and telling you to notify the sponsor - hey, give me a call. I may not have gotten a reorder slip yet. That happens a lot. While I'm whining, I'll tell you why it happens.

Some of you are ordering way in excess of your immediate needs. Example – I ordered up 500 more Boat Crew Quals guides right before Christmas. They are gone. The average order placed was for 20 manuals. Now I know I don't know everything, but I do know that most stations do not turn over 20 new crewmen every year. So while the excess sits on your shelf – someone else has to do without.

That's it for this edition, but keep those cards and letters coming. If we are to do our job responsibly, we need your input.

Rescue and Survival Systems Notes

By: CWO Mark O. Hyde, G-NRS-2

DEWATERING PUMP MODIFICATIONS

Recently it has come to my attention that some units are modifying the P1A pump by changing the intake hose fitting to a quick disconnect fitting. These fittings were used in the past and are prone to leak, which will not allow the pump to take suction. Units which make unauthorized changes are setting themselves up for pump failure during critical situations. To maintain standardization we **do not allow** units to deviate from standard configurations of rescue equipment. Recommendations for changes to survival equipment may be submitted directly to COMMANDANT (G-NRS-2) using the form found in the back of the Rescue and Survival Systems Manual COMDTINST M10470.10B.

DRY SUIT UNDERGARMENTS

While winter may be winding down, it's still time to think about hypothermia protective clothing. I have received a few calls from field units saying the new Coast Guard approved dry suits are great for water repellency, but they provide no warmth. These people are accustomed to wearing the antiexposure coverall with a built in insulation layer of closed cell foam. This type of garment has an inherit warming capability.

The new Coast Guard approved dry suits have no inherit warming capabilities. Therefore, a boat crewmen must layer on undergarments to keep warm. I have identified some undergarments found in the national stock system that will provide thermal protection and comfort for the wearer. These undergarments consist of polypropylene underwear and a polyester fiberpile (polarguard) bib overall and shirt. This combination of garments is worn under the uninsulated dry suit. The polypropylene undergarments tend to wick moisture away from the body providing a dry layer of clothing against the skin. Polarguard fabrics provide thermal protection even when wet. Both these undergarments when used with each other, under a dry suit, are IDEAL for cold water survival!

POLY UNDERSHIRT		POLY DRAWERS	
SIZE	NSN	SIZE	NSN
XS	8415-01-227-9547	XS	8415-01-227-9542
S	8415-01-227-9548	S	8415-01-227-9543
M	8415-01-227-9549	M	8415-01-227-9544
L	8415-01-227-9550	L	8415-01-227-9545
XL	8415-01-227-9551	XL	8415-01-227-9546

POLYESTER FIBERPILE SHIRT

SIZE	NSN
XS	8415-01-228-1353
S	8415-01-228-1354
M	8415-01-228-1355
L	8415-01-228-1356
XL	8415-01-228-1357

POLYESTER FIBERPILE BIB OVERALL

SIZE	NSN
XS SHORT-REG	8415-01-228-1323
XS LONG	8415-01-228-1324
S SHORT-REG	8415-01-228-1325
S LONG	8415-01-228-1326
M SHORT-REG	8415-01-228-1327
M LONG	8415-01-228-1328
L SHORT-REG	8415-01-228-1324
L LONG	8415-01-228-1330
XL SHORT-REG	8415-01-228-1331
XL LONG	8415-01-228-1332

In the event it is not possible to procure standard Navy issue cold weather clothing, the following commercial clothing suppliers can be used. (This does not represent a complete list of cold weather clothing manufacturers and is not intended to serve as an endorsement for any company.)

Aquaskin Polypro
Tansley International
P.O. Box 83882
San Diego, CA 92138-3882
(619)276-7018

Eddie Bauer
P.O. Box 3700
Seattle, WA 98130-0006
1-800-426-8020

Damart
1811 Woodbury Ave
Portsmouth, NH 03805-0001
1-800-258-7300

Mass Army Navy Store
15 Fordham Road
Boston, MA 02134
1-800-343-7749

Early Winters, Inc.
2800 Hoover Road
Stevens Point, WI 54481
(715)345-2770

Campmoor
810 Route 17 North
P.O. Box 997-F
Paramus, NJ 07653-0997
1-800-526-4784

Gander Mountain, Inc.
Highway W, P.O. Box 248
Wilmot, WI 53192
1-800-558-9410

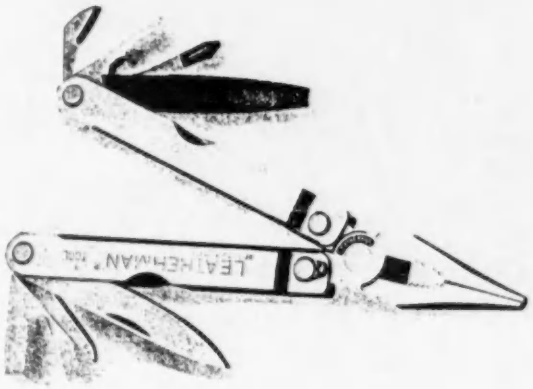
Recreational Equipment, Inc.
P.O. Box C-88125
Seattle, WA 98188-0125
1-800-426-4840

A BETTER KNIFE

Remember the other day when you tried to cut that ⅓ inch nylon line with your government stock system knife? You had to saw through that line like it was steel cable. The words that came from your mouth are unrepeatable because you just sharpened that knife two weeks ago. There is a better quality pocket knife in the stock system. This knife with built in pliers, screwdrivers, and other Swiss Army accessories, will even hold an edge. You can order the Leatherman Knife by placing 5120-01-279-9332 on a requisition sheet. For a single folding blade knife, the Spyderco rescue knife is excellent. It is available from Spyderco, Inc. P.O. Box 800, Golden CO. 80402-0800, 1-800-525-7770. These

pocket knives costs more then the typical government knife but are well worth it.

If it is a fixed blade knife with a sheath you are looking for, we found that "Frosts" knives hold an edge even through the roughest abuse. These knives are popular in the commercial fishing industry and are used by NATO forces. They are available to the government for about $6.00 from Empire Cutlery Corporation, 12 Kuger Court, Clifton, NJ 07013.



WHERE IS CHANGE ONE TO THE RESCUE AND SURVIVAL SYSTEMS MANUAL?

When I first arrived at Headquarters and estimated that change one would be out by the end of 1990, I didn't realize the extent of this job. OK I'll quit whining, my bottom line is that there have been many changes in the survival field. The RSSM needs to be rewritten. Here are some of the latest changes.

- Blue deck shoes are no longer approved, only brown deck shoes may be purchased.
- Every 41' UTB and 44' MLB will be issued a P-5 dewatering/firefighting pump. This pump has TWICE the capacity of the P-1A pump.
- We are beginning to test automatic inflatable life vests for boat crew use.
- A new rescue swimmer harness is being designed.
- Non-fogging ski goggles may be purchased for boat crew use and helicopter operations.
- Lightweight white water kayaker-type helmets are approved to replace motorcycle-type helmets.o/s

Approved helmets and goggles are available from the following sources:

School of Survival Specialties
P.O. Box 7225
Spokane, Washington 99207
(509) 466-1724

Lifesaving Systems Corp.
720 4th Street S.W.
Ruskin, Florida 33570-1829
(813) 645-2748

MK 25 AND MK 58 HAZARDS

Recently an aviation unit was conducting training which required deploying MK-25 Marine Location Markers. After the training was completed, the aircraft commander requested the Coast Guard safety boat pick up the expended flares. Soon after retrieving the flares, they reignited aboard the Coast Guard vessel. This resulted in two crewmen receiving second degree burns on their hands trying to throw the burning flares overboard.

Coast Guard policy is to retrieve all markers found floating in lakes or at sea when there is a possibility of them washing ashore. These flares, if expended, should be retrieved and placed in a fireproof container(trash can) filled with water. If the flares have not fired, place them in a fireproof container without water. Keep this container on deck, where any smoke that may occur cannot harm crewmembers. THIS SMOKE IS EXTREMELY CAUSTIC TO RESPIRATORY TISSUE! After returning to the station, the nearest Explosive Ordnance Disposal Unit (EOD) should be contacted for disposal instructions. These instructions also pertain to MK-58 Marine Location Markers. As a reminder, when any ordnance is found on beaches, a guard shall be posted to keep personnel away from the device while the local police and/or nearest EOD unit can respond.

Time To Teach Search And Rescue, Again

By: LCDR Mike Monteith, G-NRS-2

At Headquarters we look for trends, seldom focusing on the triumphs or tragedies of individual units. Of course, we're proud when we see a SITREP with lives saved; and we are all sad to see cases where our best efforts at lifesaving go unrewarded. Since we review hundreds of cases each year in the SAR Division we would be terminally depressed if the Coast Guard record of successful rescue cases did not exponentially outnumber our unsuccessful efforts. In our opinion, the United States Coast Guard is the world's finest lifesaving organization.

Across the service we have observed one alarming trend which suggests that we in the SAR community should take quick remedial action. That is the subtle unintentional lapse of training in search and rescue theory and practice. Specifically, the greatest deficit of SAR expertise appears to be at the unit level where junior boat crews have never acquired the knowledge, skills, and experience required to guide them through a crisis at sea. Despite our successes at enhancing boat crew professionalism, learning law enforcement practices, improving material readiness, and mastering command, control and computer communications, we seem to have relegated search and rescue to a third order skill. SAR is a discipline in itself, not a subset of boathandling, navigation, engineering, boarding, or seamanship. Without a fundamental understanding of maritime lifesaving, many of our crews are handicapped in their ability to accomplish the most important job we ask of them, to save lives and property at sea.

We have not arrived at this opinion without supporting documentation. From SAR case histories, Standardization Team debriefs, MISHAP Safety Investigations, claims and litigation proceedings, and personal observations we conclude that, as an organization, we need to teach search and rescue; AGAIN.

We say "again" because SAR training at every personnel echelon and unit level was once prevalent. As examples: SAR correspondence courses were once required for officer promotions, service-wide exams were heavily biased towards SAR, districts regularly circulated SAR exercises and case studies, shipboard rescue and assistance drills were practiced almost daily, and the National SAR School taught students ranging down to the small unit level. We were far more focused on search and rescue.

We are not suggesting that a return to the past is in order. Our drift away from a SAR oriented service has been paralleled by gaining world recognition as experts in marine safety, environmental protection, law enforcement, and warfare skills. We have also exchanged some of our SAR expertise for improved management, superior human relations, sound waste disposal practices, secure communications, and occupational health monitoring; to name a few.

We do advocate the following practices to enhance SAR readiness:

(1) Every operational unit should review SAR case files to determine:

a. Most common SAR case profiles (i.e. AAA tow job of recreational skiff).

b. Most critical cases (i.e. charter boat capsizes, aircraft crashes, etc.).

c. Most unusual cases (i.e. overdue submersible).

d. Cases requiring special action (i.e. diver injuries).

e. Cases requiring unique skills (i.e. righting overturned catamarans, shoring grounded sailboats with deep keels, etc.).

f. Cases requiring special treatment (i.e. celebrity or diplomatic involvement, suicide victim retrieval).

(2) Develop most probable scenarios for each of these case types and incorporate them into unit SAR training and underway exercises.

(3) Study previous successful and unsuccessful unit cases to learn from triumphs and avoid making repetitive errors.

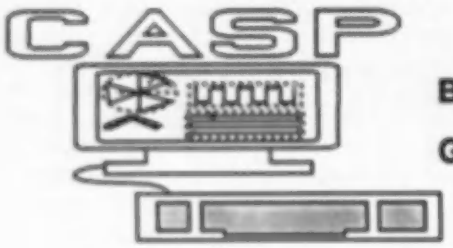
(4) Mandate that senior personnel supervise SAR training. Their experience is invaluable and their involvement ensures that we do not fall into our common practice of having minimally trained personnel teaching our untrained crews.

(5) Practice for SAR both underway and in the OPS center.

a. Underway - There is no substitute for practice at sea. If a units most critical probable SAR case is a capsized charter boat with a dozen persons in the water(PIW) then coxswains and crews should run controlled exercises in which twelve adults are physically hauled from the water and given appropriate triage and first aid.

b. At the unit - Run drills based upon most probable scenarios of SAR responses not frequently required. For example, attempt to determine whether the unit's rescue bill for diver injury can be executed as written. Are recompression chambers actually available? Are appropriate physicians available to man them? Test coxswains and duty petty officers by role playing for unusual situations. What about a boatload of non-English speaking adolescents heading out in a skiff into questionable sea conditions? Also take time to review a few of more esoteric aspects of search and rescue; topics such as vessel stability, disaster psychology, seasickness, and risk management.

These are only suggestions which we hope will stimulate your unit to teach SAR again. Too often, we see the same oversights and mistakes repeated. After all, our multimission philosophy, compounded by frequent personnel transfer, virtually ensures that continuity in SAR training will sometimes be fragmented. For this reason alone, we owe it to the public we serve to ensure that we continue to live up to our well deserved reputation as the world's premier LIFESAVERS, the United States Coast Guard!



By: CDR Steve R. Osmer,

G-NRS-1

A fourth CASP coordination meeting was held 28 November 1990 at CG R&D Center, Groton, CT. Representatives from Commandant (G-NRS), Operations Computer Center (OCC), International Ice Patrol (IIP), CG Academy (CGA), R&D Center (R&DC), National SAR School (NSS), and Operations System Center (OSC) were present.

Among the items discussed were:

o Between the 3rd and 4th quarters FY90, CASP usage on cases by the RCCs increased 25%. While the total number of cases on which CASP is utilized to assist the search planner is still relatively small, the upward trend is welcome and we are confident that it will continue. (I try to check each quarter with the aosr or senior controller as to CASP usage and problems they are experiencing with CASP.)

o The new CG Addendum to the National SAR Manual prescribes the running of CASP in certain scenarios; utilization of the data is still left to the discretion of the controller.

o PacArea (opc) personnel are working on a new CASP user guide. They hope to have a draft completed by end of the second quarter this FY.

o The CASP System Functionality Requirements have been approved. This document will serve as the baseline for the planned rewrite and technological upgrade that is planned to commence FY92.

o A paper on CASP and the correction and improvement effort has been submitted to the June 1991 International Lifeboat Conference.

The CASP Team wants to encourage the continued and increased use of CASP and feedback on CASP performance. This feedback from the field is important for informing us what in CASP is performing as expected, and what is not. Two recent feedbacks received from D11 and D5 are now being considered. D11 has recommended that a standard guide be developed for inputting DMB and other drift information into CASP; D5 has reported CASP drift prediction discrepancies in the vicinity of the Gulf Stream. Both concerns are not new, but this type of feedback encourages effort in these areas. The DMB guide should be addressed during the R7DC-IIP satellite-tracked drifter evaluation in D14 this spring and summer. R7DC-IIP-CGA are reviewing the Navy's new Regional Gulf Stream model as a possible replacement for the hand-digitized Gulf Stream information that IIP now prepares weekly for loading into CASP (this information is thus at least a week old if not up to two weeks old).

Other items discussed were:

o The Office of N is providing funding for a contract CASP programmer. This person will work under the R&DC ISARC Project, and prepare the necessary software changes to CASP as recommended by the team. This programmer will work in concert with the OCC-OSC

o The R&DC ISARC Project will be working on constraining the amount of environmental data that the opcens now have to load when they run CASP, will assist IIP with the worldwide and higher resolution data investigations, and research the second order statistics for CASP. Their planned work on CASP is included under the project's Improved POD Modeling element.

o IIP will undertake to validate the FNOC Regional Gulf Stream model. This product would

replace the existing weekly data IIP now supplies to CASP. IIP will also continue their liaison with FNOC and NOAA to finalize the new data delivery formats and the resolution desired for expanding the CASP on line data base to worldwide coverage. IIP will continue their validation of a new climatological sea current file.

o CGA's Department of Science will collaborate with IIP and the R&DC on the FNOC Gulf Stream model and climatological files validation. A 1/c cadet will be working on a special project on how CASP uses the present historical sea current files and how it will use the proposed replacement climatological sea current data on the west coast. A possible start may also be made on reviewing the SAR-assist programs the districts have forwarded to NRS.

o I expect CASP to be a lively topic at the spring SAR Conference at RTC Yorktown in March.

SEARCHING WITH NIGHT VISION GOGGLES (NVG)

By: R. Q. Robe, ISARC Project Officer, USCG R&D Center

During the past few years dramatic progress has been made in technology of night vision. Small units which can be worn on the head are widely available and have increasingly become available to Coast Guard aviators. HH-3F aircraft have been modified for the use of Aviators Night Vision Imaging System (ANVIS-6) and other Coast Guard rotary wing aircraft will eventually be NVG compatible. NVG's have already proved to be very useful to aviators in many of the night time missions.

The Coast Guard Research and Development Center's Search and Rescue research project has been conducting a series of detection experiments designed to quantify the ability of an NVG equipped aircrew to detect small SAR type targets. The experiments began in April 1989 in Ft. Pierce, FL and there have been four additional experiments conducted both at Ft. Pierce, FL and Block Island Sound, RI. These experiments have used life rafts with and without retro-reflective tape, 18-21 foot skiffs, and PIW's with Type I PFD's. A variety of lighted targets have been tried also. The experiments have been supported by aircraft from AS's Cape Cod and Traverse City and by UTB's from Stations Ft. Pierce, Montauk, Pt. Judith, and New London.

The objective of this series of experiments is to define the sweep width which best fits the search platform, SAR target type, environmental conditions, and lighting conditions for searcher target interactions. At this time the R&DC has one final test series during the Spring of 1991 which will wrap up the current testing. Future testing of the ANVIS-6 units on HH-60's and HH-65's in order to confirm the detection data collected on the HH-3F may be warranted.

One of the most interesting of the preliminary results is that the Probability of Detection of a PIW wearing a Type I PFD at night, for an aircrew wearing the ANVIS-6 goggles, is nearly identical with a day time search by the same crew. It should be remembered that the detection probability is fairly low in both cases. The retro-reflective tape is a very important component of the detection.

Small Boat Station Report Card

By: UTB Standardization Team Staff

The Standardization Team has evaluated findings from their station visits. New questions arose as to the capabilities of the units, equipment, and training needed for them. Some recommendations have been given, and suggestions were taken with a decision to get them discussed and implemented.

To date, the UTB System Center Standardization Team has visited 32 stations, conducted material evaluations on 45 UTB's and conducted underway check-rides on 116 boat crews. This is a summary of what the team has been finding during these evaluations.

Of the UTB's inspected, 20 had stress cracking mainly in the vicinity of frames 3, 4, and 5 in the lower cabin bilge.

For the most part, the cracks were in the welds resulting in longitudinal separation from frames. Most of the cracks were minor in nature. All but 2 UTB's had already accomplished Boat Alt #45 (Structural Reinforcement), an indication that this is not the answer to the cracking problem. This appears to be a class wide problem and we recommend monitoring and corrective action at the next scheduled availability. We are also finding major corrosion and pitting throughout the bilge area. It is being caused by dirt and salt buildup. The worst areas are beneath the shafts and between frames 4 and 6 in the lower cabin bilge where access to clean and inspect is extremely tight. Stations having extra gear stowed in the stowage area in the lower cabin usually have the dirtiest bilges and the most corrosion. We recommend taking ultrasound readings of the effected areas at the next scheduled haul out. Metal deterioration of 30% or more requires replacement. We also recommend flushing all bilges with fresh water monthly, scrubbing them with a mild soap solution quarterly, and keeping them dry and aired out as often as possible. We are currently prototyping bilge cleaning frequency for G-ENE at the UTB Systems Center.

The electrical wiring in the UTB fleet is getting old and starting to cause problems. 50% of the UTB's inspected have wiring problems. Units are experiencing shorts and grounds, most likely being caused by deteriorating wiring. Consideration should be given to developing a timetable to start completely re-wiring the fleet. It also seems that RTV has become the tube stuffing of choice throughout the fleet.

The most non standard area encountered thus far is in the area of electronics. King, Icon, Triton, Polaris, MCX100, and MCX1000 are radios being used. Radio location and antenna configuration vary greatly. West coast units are using the Data Marine fathometer, East coast units are using the Ross. Boat alt #79 (New fathometer) recently issued, gives each MLC the authority to select the fathometer for use on their UTB's. Units on the West coast have already modified the power pack mounting for the MCX1000 radio, East coast and Great Lakes units are waiting for the modification to be approved by headquarters. Loran units and AM radios are located in different locations on the boat. Different homers are being used without clear written standards of what is or is not authorized. This defeats the whole purpose behind standardization. We really need to standardize electronics throughout the UTB community. We are working closely with G-TES and both MLC's to achieve this and are very encouraged by their cooperative spirit.

On average each UTB has 5.2 Boat Alts either not completed or not completed properly. The most encountered on one UTB was 16, the fewest was 2. Twenty four UTBs do not have Boat alt #73 (Rubrails) completed. These UTB's are primarily located in the Seventh and Ninth Districts. Boat Alt #63 (Lighting modification) is the one most often not completed correctly (20 UTB's). The common

mistake being made is not separately wiring the red and white lights in the lower cabin. Thirteen UTB's had not completed boat Alt #56 Amendment 1 (Installation of a Halon test button). Sixteen UTB's had not completed Boat Alt #38 Amendment 1 (Horn relocation). We have addressed these common problems in the UTB Systems Center news letter.

For the most part, P1-A pumps start on the first or second pull and are being maintained in accordance with published guidelines. Many of the units are having problems with different features of the pump and the pump canister. We did a field survey on the problems being encountered and forwarded them to G-NRS-2.

BOSS Inventories are generally adequate, however the paper work necessary to maintain the system is sometimes overwhelming, especially for small units. An EPO at one of the stations recently visited has developed a computer inventory program that we really liked. We asked him to submit it as an IDEA EXPRESS suggestion.

Boat records are being maintained. However, most units need to purge the records of outdated or unnecessary items. We ran an article on this in our newsletter which has shown favorable results.

A common problem being brought up by EPO's concerns procurement procedures at SCCB in Curtis Bay. SCCB tries to stock a six month supply of a particular BOSS item. As we understand it, when they start to run low, they are required by law to re-submit the item for bids. Although operational specifications are in the bid package, if the manufacturer changes, the unit often must modify piping, mounting, and/or storage brackets to accommodate the new equipment. Replacement parts for existing equipment that is still serviceable but no longer being stocked, may, or may not be available through the stock system. In recent years there have been four different fire pumps and monitors, all requiring modification of piping, mounting, and stowing. This is time consuming, costly, and frustrating to units. If we must continue to do business in that manner, we recommend SCCB issue a "package deal" when alterations are encountered.

Of 116 boat crews evaluated on underway check-rides, approximately 10% were rated as unsatisfactory against the standards contained in the "Ready For Operations" program. The vast majority of unsatisfactory scores were given in night navigation exercises. WE ARE FINDING THAT MOST COXSWAINS ARE EXTREMELY WEAK IN ALL PHASES OF SMALL BOAT NAVIGATION. Most of the day to day operations at small boat stations requires little more than "seamans eye" navigation. As a result, coxswains are rusty at best when placed in a situation where they must navigate. We recommend that both units and groups increase their emphasis on small boat navigation. We also encourage more underway participation from the senior personnel assigned at stations. (The paper work requirements still keep many of our people stuck behind a desk. Growing requirements, such as COMDTINST 6010.17 dated 17 SEP 90 will continue to burden the small unit which is already under staffed and over burdened with paper work.)

Towing, dewatering, and man overboard exercises are generally being performed satisfactorily. Scores average in the low 80% range on written quizzes given to qualified coxswains, crewmen, and boat engineers.

We developed a questionnaire that we have used during the past 16 station visits. We spend a morning talking with the station commander on problems being encountered at his or her unit. From these discussions and questionnaires, we have developed statistics that you may find interesting.

1. Are the number of authorized personnel assigned to your unit adequate to perform your mission?

71% - No
29% - Yes

A shortage of people is of the most concern to unit commanders. Staffing standards badly need review. To emphasize this point, we prepared a chart for the last 16 stations visited. Four different Districts are represented.

Auth personnel	#UTB's assigned	# non standard boats assigned	#MLB's assigned	Average case load
06	1	2	0	40
10	1	2	0	40
11	1	1	0	110
14	1	1	0	90
15	1	2	0	60
16	2	1	0	225
17	2	3	0	125
19	1	2	0	175
20	1	2	0	220
23	1	2	1	360
28	1	1	1	167
28	1	1	1	527
29	2	2	0	500
30	1	1	1	350
31	2	3	0	500
60	3	4	0	950

By comparing the information provided by this chart, it becomes very difficult to determine how staffing is done.

2. If you could have one additional billet, what would it be and why?

55% - YN/SK
21% - BM3/BM2
12% - MK3/MK2
12% - Misc.(SS2,BM1,BMC,SN,FN)

Most station commanders would like a YN/SK assigned to relieve them of some of the administrative duties so more time could be devoted to operations and training. A SK2 is the most preferred rate because of supply as well as administration. When a station commander wants an additional BM or MK it is usually to allow them to run 3 section liberty. Eight of the 16 stations currently run port and stbd, 2 on 2 off with sliding weekends.

3. Are the boats assigned to your station adequate?

90% - Yes
10% - No

All but one of the no answers referred to non standard boats. One station commander felt the UTB assigned was overkill based on his case load and area.

4. Do you have adequate funding to run your station?

69% - Yes
31% - No

Surprisingly money is not the problem. Most of the units who felt they were under funded said they could usually get additional funding from their Group.

5. Are you receiving adequate support from your Group?

40% - Yes
18% - No
42% - being supported as well as their limited small boat operational experience permits.

6. Breakdown by percentage, the amount of time devoted to the following areas.

	Op's	Train.	Maint.	Admin.	Misc.
CO/OIC	21%	18%	9%	37%	15%
XPO	16%	15%	7%	58%	4%
EPO	12%	14%	45%	26%	3%

Station commanders and XPO's are spending over 50% of their time on administration and misc.(Auxiliary, Reserve, Housing, Community Relations, etc.) duties. We are finding junior people training junior people. The percentages in both operations and training are somewhat inflated. At six stations, both the OIC and XPO had to routinely stand duty coxswain either due to size or being short staffed. Percentages are much lower when this is not the case.

7. Do you like the Stan Team concept? (This is asked following the final debriefing and just prior to departing the unit)

100% - Yes

8. What can the Stan Team do to further assist you?

(a) Provide some type of small boat training for Group personnel.

(b) Make some video tapes on various aspects of standard UTB configuration and training.

(c) Correct errors and ambiguities in the BCSM, UTB Operator's Handbook, etc.

(d) Put common sense back into small boat operations and training procedures. We are running small boats not ships.

(e) Keep visits low key with as much emphasis on training and helping a station as on evaluating the station. We need help, not more inspections.

(f) Standardize nonstandard boats.

These are the statistics developed from the last sixteen stations visited. They are representative of all the stations we visited to date. We do not try and influence answers given or try to interpret how station commanders really feel. We only wish to accurately present their concerns and opinions whether we agree with them or not.

The following recommendations and opinions are offered for your consideration.

1. Coast Guard personnel have become programmed over the years to be prepared to handle any contingency that could conceivably occur. As a result, far too much extra equipment is being carried on board UTB's. We see 2 and 3 EMT kits, line throwing guns, inflatable boats, and DC kits that require 2 men to lift, etc. One station had so much extra gear stowed in the lower cabin that oil and antifreeze required to be stowed there had to be stowed in the well deck. We stress the importance of not stowing anything in the head so it won't block the emergency exit in case the UTB should capsize. There is so much gear being stowed in the lower cabin, the crew would have difficulty getting to the head should a capsizing occur. We recommend only equipment required by the UTB Operator's Handbook be stowed on the boat. All other equipment (AFFF, line throwing gun, EMT kits, inflatable boats, etc.) should be kept on the pier and taken as needed. We should go a step further and look to see if all the equipment presently required is needed or could it be kept on the pier? (e.g. stokes litter, grapnel w/100' of 2" DBN, swim fins, swim mask, in line proportioner, etc.). We find a definite correlation between the amount of equipment carried and the condition of the bilges. This will have to be mandated and enforced (at the Group level?) or stations will continue to improvise. We reiterate the need to have a means of securing items in the forward cabin for sea.

2. Implement a UTB supervisors course for group personnel at the UTB Systems Center. A course outline has been developed and submitted to Headquarters. Group personnel are expressing interest in such a course. Operational experience, especially in small boats, is practically nonexistent at the Group level. As a result, it is difficult for groups to accurately evaluate how well their stations are being run nor can they provide much in the way of assistance to them. This is especially true when Groups are also Air Stations, Support Centers, Bases, MSO's etc. As some unit commanders have stated when asked about Group support, they are being supported as well as their groups limited small boat operational experience permits.

3. Hold at least an annual meeting with both Stan Teams, SCCB, both MLC's, G-ENE, and G-NRS. Areas of concern could be discussed, solutions developed and agreed upon, and timetables for implementation established. We need a faster venue for approving upgraded equipment (e.g. rescue balls, throw bags to replace heaving lines) or changing allowance list items. It takes so long to get improvements authorized, no one wants to bother. Over a year ago, both MLC Pac and the UTB Systems Center, submitted an amendment to Boat Alt 77 (MCX 1000 radio). These amendments were to modify the mounting for the power pack and eliminate a potential safety hazard. Although everyone in the chain of command agreed with the proposal when it was submitted, it took over a year to be approved. We could also discuss ways that we might reduce the administration burden on stations. For instance one Group we visited held all classified material for their units. If a national emergency occurs, they planned to issue this material as necessary. Why can't all groups do this? Would fax machines at stations cut down on the amount of "smooth" correspondence now required? (Or would they become another job position requirement as the "work reducing computers" have?)

4. Electronics has to be standardized. Crews should not have to learn how to operate different

electronic equipment each time they are transferred. This defeats the whole purpose behind standardization. We can't give each MLC the authority to use different equipment mounted in different locations. A recent meeting w/ G-TES, G-NRS, and both MLC's has set the ground work to establish a standard electronics package required aboard all UTB's. CG41312 (RTC) will be used to prototype the standard. All the electronic types came here motivated toward getting things standardized and willing to put forth team effort. The results of the meeting are showing now. The MCX-1000 issue is resolved; the 41X radar is finalized; the fathometer and ADF are in progress and a "standard configuration" work order is being released to have Support Center Portsmouth work with us on CG41312. Once we have this standard established, a UTB BOATALT for STANDARD ELECTRONICS CONFIGURATION should be issued, complete with drawings and pictures.

5. Continue correcting and rewriting the UTB Operator's Hand Book and BCSM to eliminate errors and ambiguities and to put the emphasis back in "SMALL BOAT". Representatives from UTBSC, NMLBS, and G-NRS just completed work on small boat towing procedures. We also sent an extensive errata package to correct the UTB Operator's Handbook in December 1989. Let's continue doing this and get word to the field units with the corrections/changes.

6. A tremendous amount of station man hours are being devoted to yard and grounds upkeep. Some stations assign 2 or 3 people for a designated time frame (1 to 6 months) to keep acres of grass maintained, bushes trimmed, walks weeded, mosquitoes sprayed, etc. Some units, although not staffed, have housing units to maintain. The Coast Guard should contract out this type of work whenever and wherever possible. This isn't a new idea... just one that rarely seems to get implemented.

7. Most station commanders complain about the amount of administration required and not having a systems manager for the computers they are required to have and use. There are no practical factors for computers in the BM or MK ratings. Assigning a SK to stations would provide some computer expertise as well as freeing up senior people from much of the administration and supply that now consumes so much of their time. XPO's currently are spending the most amount of time doing administration type duties. As a result, they are usually the weakest in the underway evolutions. What makes this even worse is these XPO's will be our next OIC's.

8. A BM3 is not required to be a small boat coxswain. The practical factor requirement for coxswain starts at the BM2 level. Most BM3's assigned to the stations are able to qualify as coxswains. This is fortunate, since rarely is there more than one BM2 assigned to the unit. One of two things should happen to remedy this: (1) Lowering the practical factor requirement for coxswain to BM3 level, or (2) Provide sufficient numbers of BM2's at the station to perform coxswain duties. Station commanders must carry a BM3 who can't qualify or who refuses to do so under the existing rules, becoming an obvious burden. When deciding which way to go with this, consideration should also be giving to the expected skill level required to operate the MLB replacement.

9. Station mission areas may need to be readdressed. Do results justify all of the man hours and money being spent on the MLE mission at the station level? Most of the station commanders don't think they are. They feel that all they are accomplishing is showing the flag and recording hours to be added to the Coast Guard's overall MLE hours for budgetary purposes. Given the shortage of personnel, can we afford to continue to do this?

10. Most unit commanders have read the station study and the "myth"/policy clarification letter from Headquarters. They know how they are staffed and why. However most stations will continue to have a dedicated OOD, will continue to stand 24 hour communication/security watches, will have a 4 member UTB crew, etc. because they feel it is in their best interest to do so. Some stations, due to their physical location, number of cases handled, or the location and size of their Groups really don't have much choice. The only way most stations will stop doing what they are not staffed to do is if they are ordered not to. One District Commander has pretty much done just that. It may be necessary for other Districts to do the same, especially if staffing standards can not be increased to better reflect station needs.

11. There is a lot of frustration with the supply system. We realize much of the frustration is due to laws which must be followed. The problem is more than frustration when it affects the performance and/or safety of our equipment on the boats. From anchors to zinc's, nothing seems to remain standard

once an existing "six month supply" is exhausted. Units order something expecting it to fit as a replacement but find out, after waiting for the part to arrive, an adapter kit is now needed, or for other reasons it won't work. So... here comes the jury rigging.

12. Last, but certainly not least the Coast Guard has to get back to developing good seamen... not the pay grade, but the profession. We agree, this is done underway... but it must also be taught by someone with experience and knowledge. We actively encourage senior members of the stations to get underway... frequently... with their boat crews. The folks in the field want to. Now the folks in positions to free up some of the job enlargement requirements have to want them to, too.

Hopefully this will provide some insight on what the UTB Stan Team has been finding and hearing from station commanders and group personnel during the past 15 months of visits. Overall the stations are performing better than we probably have a right to expect, considering all the requirements that have been placed on them over the years. One thing they do agree on is "standards" and the Stan Team program. Each station was fully expecting just another inspection when first arrived on board. Without exception, each station was glad we came, learned a lot, and felt that we are on their side when we left. This is further evident by the number of telephone calls being received from stations we've visited when we are back in Yorktown. a/s

Royal National Lifeboat Institute Awards US Coast Guard

On 21 November 1990 at the London Headquarters of the Royal National Lifeboat Institution(RNLI), Admiral J. William Kime accepted the "Lifeboat Victoria Cross" on behalf of the Coast Guard for "outstanding contribution to rescue at sea".

The "Lifeboat Victoria Cross" is named for Britain's highest military medal for valor. It is presented about once every 5 years, normally for individual acts of heroism.

The strong link between the RNLI and the Coast Guard since 1873, when the Americans purchased a self righting rowing boat, continues.

BRAVO ZULU

Michael Vernon, Chairman of the RNLI, presents the "Lifeboat Victoria Cross" to Admiral J William Kime, Commandant USCG.

Billet Expansion for EMT School

By: PYA2 Andrew N. Illobre, Chief EMT School

TRACEN Petaluma's Emergency Medical Technician School is in the process of getting a complete overhaul, including renovated office spaces, updated curriculum, and seven new instructor billets.

In the past year the members of the staff worked with the EMT Program Manager at headquarters to switch to a more workable EMT text and workbook. Meanwhile, the school's performance based instruction and testing methods continue to be improved upon.

After years of conducting classes out of Quonset huts, EMT has finally moved "up-the-hill", and is occupying the barracks next to the old SS School Galley! Renovations are due to be completed by next year and EMT School will share the space with HS "A" School.

The new billet structure calls for: 1 CWO (PYA), 1 HSC, 1 POC, 1 ASMC, 1 YN1, 2 ASM1's, 2 HS1's, 1 MK1, 2 MK2's, 1 HS2, 1 BM2, and 2 PO2's.

If you are interested in an assignment as an EMT instructor, check with your detailer for openings. As it looks now, there may be openings for 1 HSC, 1 POC, 1 ASMC, 1 ASM1, 1 MK1, 1 HS1, 1 HS2, and 2 MK2's in the next year. Members requesting this assignment should have a current HD qual code. It is helpful to contact the school at FTS 623-7040 to advise the school chief or assistant school chief of your interest.c/s

SDAs EASE THE WORK OF REGULARS

By Michael H. Scott, USCG AUX

With the continuing shortages of manpower being experienced in the Ninth District, Auxiliarists are being utilized to a greater degree than ever before. One of the new positions developing is that of Senior Duty Advisor, or SDA.

The SDA evolved from the attempt to find relief for SAR station Officers of the Day (OODs), who often also fill the coxswain billet at small boat stations. Auxiliarists have stood communications watches for years, and over time a few have developed the knowledge to qualify as OODs. By working as SDAs, these civilians can assist the underway OOD with SAR planning, media relations, watch support, and other varied aspects of a SAR case. They can also relieve the coxswain/OOD of the paperwork burdens that follow a case.

Additional duties have included training communications watchstanders (Regular, Reserve, and Auxiliary), training new candidates for OOD. They also pursue station projects (such as public affairs) for which the regulars lack time, and provide logistics support in emergencies.

In a couple experiments, Auxiliarists were "assigned" full duties as OOD; but these experiments demonstrated several drawbacks. First and foremost, there is the obvious violation of CG Regulations, which require the OOD to be a "commissioned, warrant, or petty officer." The need for this became apparent, as regulars would not always perform as requested; and the military disciplinary system was not designed to be applied by civilians. Other situations, such as those requiring law enforcement decisions, were not within the scope of Auxiliary support. The experiments ran in length from weekend duty to a three-month summer program at station Milwaukee. While problems could usually be overcome for short duty periods, we realized they were potentially disruptive.

By supplementing a military OOD instead of replacing one, the SDA can greatly increase the productivity of an underway or inexperienced OOD while retaining the standard Regular/Auxiliary relationship. In the current program the SDA periodically stands by for the OOD, permitting the station middle leadership the benefits of special liberty and leave when the situations are appropriate. (The XPO remains available for those situations which cannot be handled by a civilian.)

Additional benefits from this program develop from the local experience of the Auxiliarists. Having these people involved in the SAR planning takes advantage of the local people and facilities that might be overlooked by regulars new to an area. The wealth of information and experience available from these members puts them in the position similar to the Sailing Masters of the past; they aren't in command, but they can provide valuable guidance and assistance for the ones who are!

The success of this program does not develop overnight. First and foremost, the Auxiliarists involved must develop a mutual respect with the Regulars and Reserves at the unit. There is a natural gap between the "civilian" and "military" worlds; and each must be comfortable that they recognize and understand the other. This often develops naturally as the Auxiliarist qualifies for radio watch and/or boat crew, fulfilling the same requirements as the Regulars. However, if the Auxiliarists are allowed to skip requirements or gundeck qualifications, in the mistaken belief that

they don't need to meet the same strict standards, the program is doomed to fail.

The general working knowledge necessary for the position can be studied intensely, but it seems that extended observation and experience are better ways of preparing Auxiliarists for SDA. Each should experience several years of SAR communications watch before they undertake to lead the professionals charged with the responsibility of SAR. When the Auxiliarist is ready, he/she completes the unit qualifications for OOD. With these credentials, the Auxiliarist becomes qualified as SDA and begins to assume some of the operational and administrative burdens of the OOD. Time, and the relationships between the individuals, determines the extent to which the work will be divided.

The Auxiliarists must never forget that their purpose is to assist, not replace. An inflated ego can easily destroy a working relationship. When individual conflicts develop that cannot be resolved, the choice between transferring a regular/reserve or releasing a volunteer will normally go against the volunteer, regardless of who was "right."

Tact and diplomacy are especially valuable skills in this position. If personnel at a unit no longer find the SDA a valuable resource, the Auxiliarist must be prepared to revert to more traditional roles of communications watchstander and/or boat crew. This author has been invited to serve as OOD or SDA at four stations (Wilmette Harbor, Cleveland Harbor, Rochester, and Milwaukee) over the past eight years, and all have expressed their appreciation for the service. Never has there been a shortage of job opportunities. To the contrary, there has always been more work to do than volunteers willing to make the commitment and sacrifices to do it.

The position of Senior Duty Advisor will not be suited for all units. It shouldn't be implemented just for the sake of glory and titles. When Auxiliarists in the vicinity have the knowledge, the dedication, and the time available to support a unit, the position of SDA does provide a valuable asset to the inventory of Search and Rescue resources.

QUICK RESPONSE SAVES FISHING VESSEL

By: PA2 Chuck Wullenjohn, Eleventh District Public Affairs

On the afternoon of December 19, Group Humboldt Bay received an emergency distress signal from the skipper of the F/V Lococo Brothers, which had been battered about the stern and starboard side by several simultaneous waves. The vessel was 80 miles northwest of San Francisco.

Leaning on its side from the water which had been taken aboard, the 50 foot craft sank in about three minutes. Both crewmen escaped aboard a raft.

Notified by the Automated Mutual Assistance Vessel Rescue System (AMVER), two commercial vessels, the M/V CHEVRON OREGON and the EXXON PHILADELPHIA, diverted course to the location of the sinking. So did the CGC EDISTO and aircraft from Air Stations Sacramento and San Francisco.

Aviation Survivalman 2nd Class Michael Lundgren was rescue swimmer aboard the H-3 helicopter which spotted the raft before the vessels arrived. "I jumped into the water and swam to the raft," said Lundgren. "Both men were suffering from hypothermia, one was so cold he could hardly speak. But we hoisted them both up safely and delivered them to Letterman Army Medical Center."(San Francisco).

Because of the outstanding response from Group Humboldt Bay's radio watch, rescue vessels and aircraft were credited with quickly locating and saving the two men despite the heavy seas and gusty winds.

"Our total response time from radio report to on-scene arrival was only about one hour," said Lundgren. "This included our flight time of some fifty minutes. It could have turned into a real disaster situation otherwise."

Deterioration of Survival Suit Gloves

By: SN W. Scott Epperson, USCGC TOWLINE

Recently during routine PMS, it was discovered that the gloves from one of our Sterns Foamed Neoprene Survival (exposure) suits, model ISS-500-I, and our Sterns Cold Water Rescue suit were deteriorating. The rubber in the gloves had begun to break down; the gloves were sticking to themselves and everything else they came in contact with.

Initially it was thought that this was due to contact with soot on the overboard ladder which, when stowed, hangs on the aft section of the stack behind the main engine exhaust. The ladder had been used during man overboard evolutions when both suits were used. Contact was made with the distributor of the suits, Lifesaving Systems and, on request, we shipped the suits to them. After investigation, they forwarded the suits to Sterns for further investigation and repairs. The distributor has informed us that the problem "exists when the suits are exposed frequently to chlorine water, AS IN POOLS."

Unit records showed that the exposure suit had been tested for leaks in a local pool but the rescue suit had not. It had been tested in the bay, a salt water environment. Although both suits are thoroughly rinsed after exposure to chlorine or salt water, some residue may be retained in the textured surface of the gloves. This residue is then condensed with moisture from suits inside the closed survival suit locker on deck.

Another cause was the possible conversion of salt water to chlorine. There was not enough to warrant looking into this further. Until other explanations become evident, we are keeping a close eye on all of our suits and ensuring thorough rinsing and drying after use. Pool time is being kept to a minimum. The deteriorated gloves were replaced by the manufacturer and the suits were out of service for a minimal amount of time.

1991 SAR CONFERENCE

By: CDR S. R. Osmer, G-NRS-1

This years annual SAR Conference will be hosted by RTC Yorktown and the National SAR School during 26-28 March 1991.

G-NRS has invited both the district Search and Rescue Chiefs, or their representatives, and the RCC senior controllers. Additional attendees are expected from the Areas, GANTSEC, MARSEC, Operations Computer Center, Operations System Center, International Ice Patrol, Research and Development Center, the Academy, and Air Rescue Service.

Agenda items have also been solicited, to be provided to G-NRS by the end of February. Among the topics to be discussed are the recently distributed revised CG Addendum to the National SAR Manual, the CASP Improvement Project, the AMVER Project, and the Maritime SAR Assistance and Hoax Response policies.

ADMIRAL KIME RELEASES NEW COAST GUARD VISION STATEMENT

In ALCOAST 079/90.....

"I have worked with my staff in preparing a vision statement outlining my view of the Coast Guard. This statement should facilitate alignment of our organization so that everyone can work together to make the improvements we need to make. This vision is the basis for my strategic agenda and will serve as the foundation for my strategic plan."

The Coast Guard Vision Statement

"The Coast Guard is committed to continuous improvement of its performance as the world's leading maritime humanitarian and safety organization.

We strive to be the armed force offering the most challenging and rewarding career for the young men and women of our nation while preserving and honoring those customs and traditions that have served the country so well in peace and war.

We are responsive to changing national priorities. We are willing to explore new areas of endeavor, and we seek a balance in response to our traditional missions in support of national security, law enforcement, maritime safety, and environmental protection.

We are committed to providing for the welfare of our people and their families so that the Coast Guard can stand, always ready, to serve, protect and enhance our nation's maritime interests."

ADM J. W. Kime, Commandant
United States Coast Guard. c/s

"WE SEARCHED ALL DAY..." Probability of Detection and Combined Sweep Widths

by LCDR M. J. Lewandowski, G-NRS-1

"We searched all day and nobody was out there"... or ..."we searched all day and couldn't find anybody."

The first statement may or may not be true. The second is far more accurate. Which would you want to tell a reporter, only to have a survivor be picked up by somebody else while you're watching yourself on the evening news?

Track Spacing, Sweep Width, Coverage Factor and Probability of Detection are all concepts that come into play when assigning search units to particular search areas. These topics are covered in Sections 534 through 537, Volume I of the SAR Manual. Specific sweep width tables are included in Chapter 4, Volume II. All of us involved in SAR must have a good understanding of what these terms mean and how they're applied to our mission.

The Search and Rescue Division recently got a letter concerning Probability of Detection (POD). A district "SAR Boss" posed the following:

"As I understand, POD is based on the probability of visual detection only and electronic detection (e.g. radar) is not factored into a search's POD. Is this correct? If so, are there any plans to incorporate electronic detection into POD calculations as our technology continues to improve?"

Before giving a direct answer to these questions, some discussion and review of terms might help. The terms "detection probability" and "probability of detection" are often used interchangeably. However, they have different meanings. Two such quantities are probability of detection for the search (POD) and probability of detection versus lateral range (P(x)). For the remainder of this article, P(x) will be referred to as "detection probability".

"POD for the search" is a numerical statement of the odds that the search object will be detected, provided it is in the area searched. Figure 1, (Figure 5-19 of the SAR Manual) is a graph which shows POD as a function of "coverage factor" (C). The cumulative POD curves shown in this figure are based on a mathematical formula called the inverse cube law of detection for visual search. Coverage factor (C) is the ratio of sweep width (W) to track spacing (S), or C = W/S. Note from Figure 1 that for a single search where track spacing is equal to sweep width, the highest POD for that search is only approximately 78%.

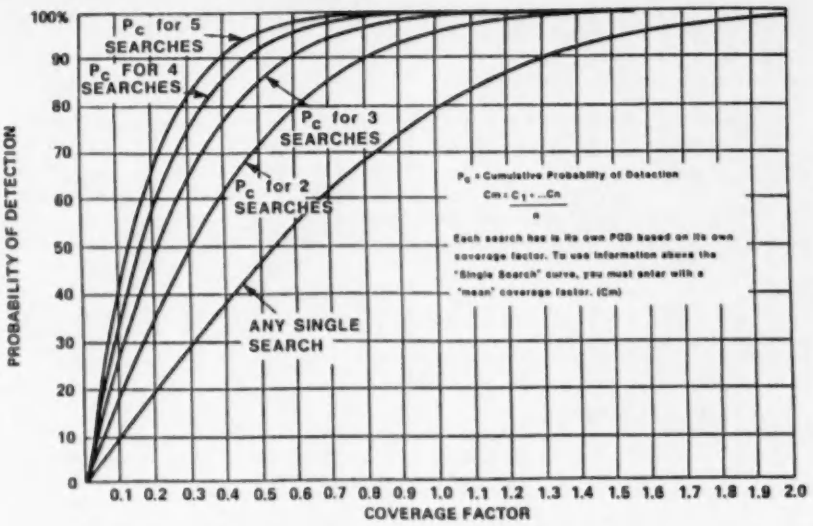

100%
90
80
70
60
50
40
30
20
10
0
PROBABILITY OF DETECTION
Pc for 5 SEARCHES
Pc FOR 4 SEARCHES
Pc for 3 SEARCHES
Pc for 2 SEARCHES
ANY SINGLE SEARCH
Pc = Cumulative Probability of Detection
Cm = C1 + ...Cn / n
Each search has is its own POD based on its own coverage factor. To use information above the "Single Search" curve, you must enter with a "mean" coverage factor. (Cm)
0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0
COVERAGE FACTOR

Figure 1. Maritime Probability of Detection

"Sweep width" is the distance on both sides of the SRU where the probability of detecting a target outside a distance is equal to the probability of missing a target inside that distance. This is graphically depicted in Figure 2 (Figure 5-16 of the SAR Manual). Here's where that other probability (P(x)), or the detection probability versus lateral range, comes into play.

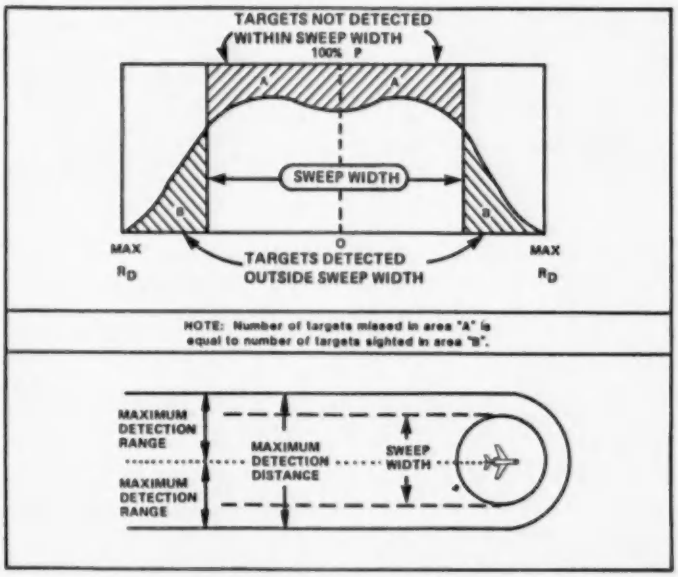


Figure 2. Sweep Width

The top part of Figure 2 depicts a "lateral range curve" where the detection probability is measured by the vertical axis, and the lateral range from the search unit is measured on the horizontal axis. Figure 3 shows how visual detection probability (P(x)) varies as a function of lateral range in differing conditions. As in Figure 2, the shaded areas above and below the lateral range curves indicate targets not detected inside the sweep width and targets detected outside the sweep width, respectively.

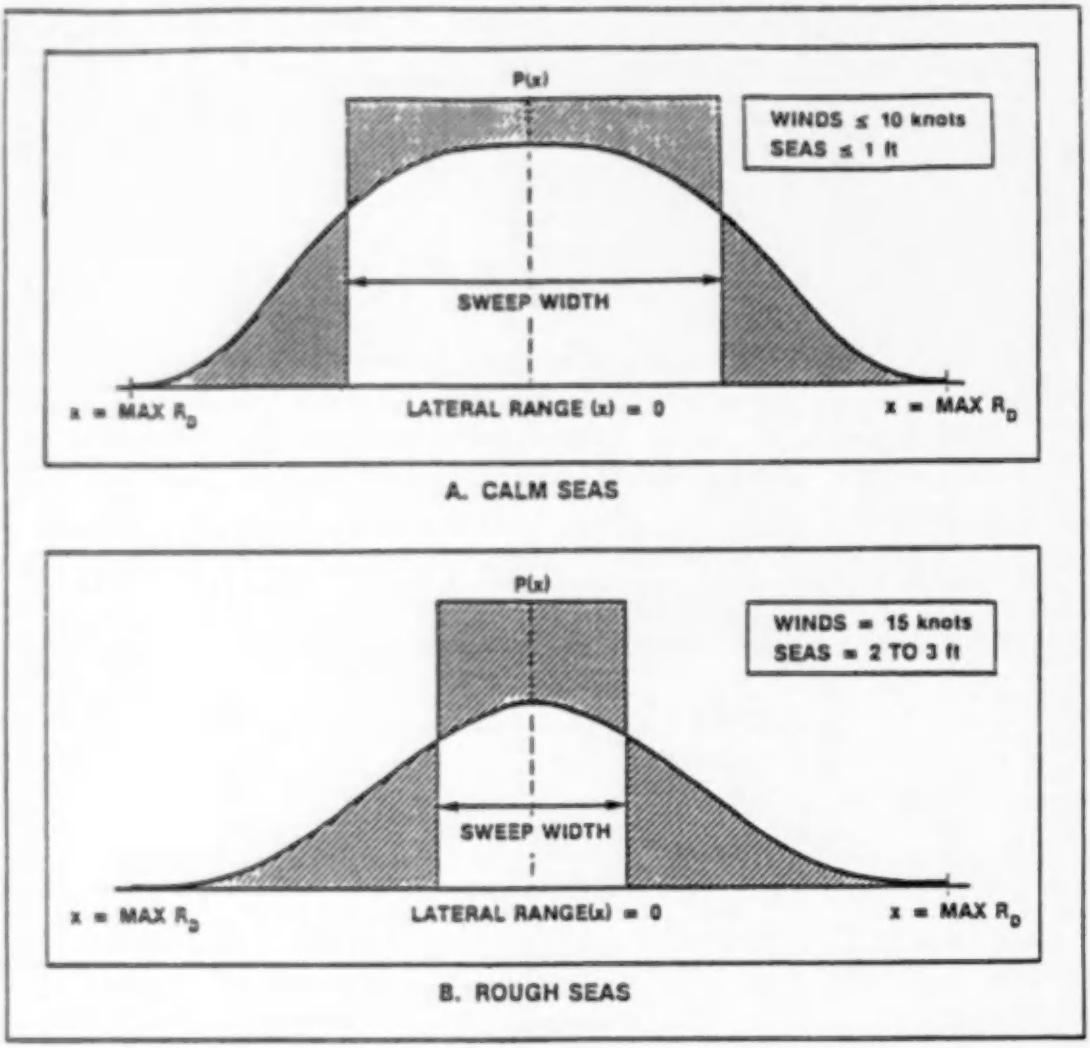


Figure 3. Lateral Range Curves Showing Effect of Winds/Seas on Visual P(x) and Sweep Width

Figures 4 and 5 are examples of how electronic detection probability varies with distance. These lateral range curves are for the AN/APS-127 Forward Looking Airborne Radar (FLAR) and AN/APS-131 Side Looking Airborne Radar (SLAR) as used on the HU-25B Guardian aircraft in an actual test. Note that the greatest detection probabilities (P(x)) in both of these specific cases were found to exist some distance away from the aircraft. In fact, as shown in Figure 5, the greatest detection probability is outside the sweep width. This is somewhat different than how visual detection probability varies with distance.

(In Figures 4 and 5, only ½ the lateral range curve is shown. The vertical line indicates ½ the sweep width. Following the conventions of Figures 2 and 3, the shaded area above the curve represents targets not detected inside sweep width, while the shaded area below the curve represents targets detected outside sweep width.)

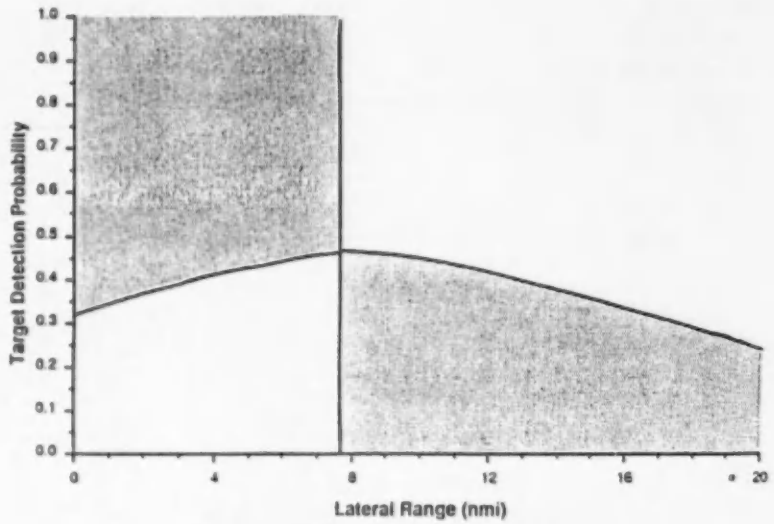


Figure 4: Lateral Range Curve
AN/APS-127 Radar, 20 NM Range Scale
Detection of 32- to 42-Foot Boat
seas 2 to 3 feet

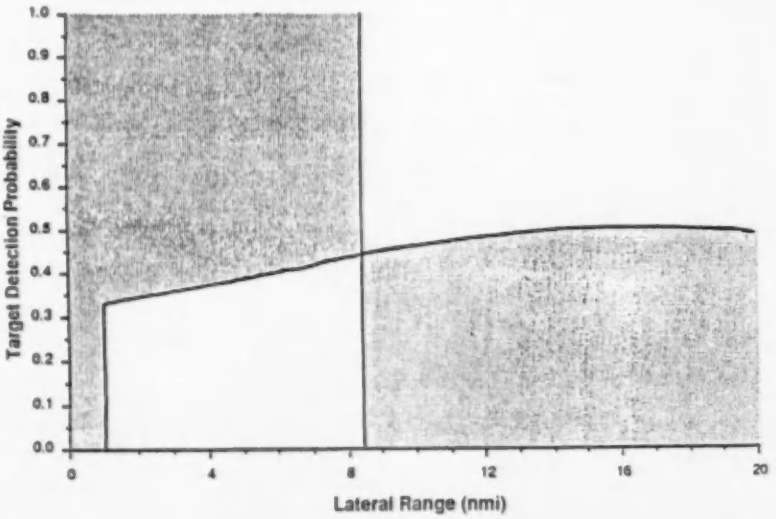


Figure 5: Lateral Range Curve
AN/APS-131 Radar, 20 NM Range Scale
Detection of 32- to 42-Foot Boats
seas 2 to 3 feet

Since both these curves were developed when using the radars on their 20-mile range scales, the maximum detection range (MAX R_D in Figures 2 and 3) is 20 Miles. Note in Figure 5 how there is a 50% detection probability, even at the maixmum detection range.

The original question concerned POD with respect to visual detection and electronic detection. Since, as discussed above, POD (probability of detection for

the search) is a function of sweep width, the multisensor sweep widths listed in Volume II, Section 426 of the SAR Manual do, in fact, account for a combination of visual and electronic detection. The information in the sweep width tables is based on combined results of different data collection experiments. On some occasions the tests weren't done concurrently and in others, data was based on Cumulative Detection Probabilities.

The lateral range curve in Figure 6 gives an example of detection probability with combined sensor use. The curve shown is an estimated result of mathematically combining detection probabilities over lateral range as shown in Figures 4 and 5. This combination is not a matter of simple addition. To arrive at this lateral range curve, one must determine an average of independent and correlated detection probabilities for increments of lateral range. The case shown is for two electronic sensors where it was found that the maximum detection probability is some distance from the search unit. From Figure 6, we see a combined sweep width of 21.8 NM (vertical line at 10.9 NM for ½ sweep width). This compares to individual sweep widths of 16.8 NM and 15.3 NM for the APS-127 FLAR and APS-131 SLAR (Figures 4 and 5) respectively.

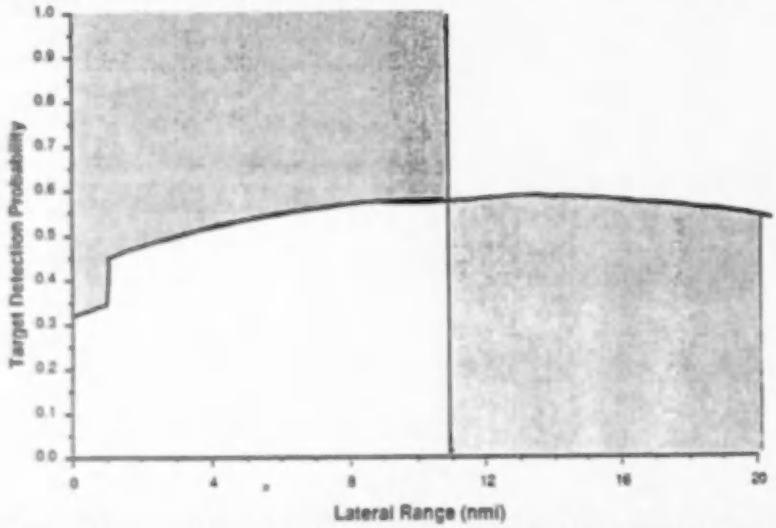


Figure 6: Lateral Range Curve for Combined FLAR/SLAR, 20 NM Range Scale, 32- to 42-Foot Boats, Seas 2 to 3 feet

The difference between electronic and visual search detection probabilities has been noted and discussed among R&D Center, Operations Computer Center, and Headquarters Search and Rescue Division personnel. As funds and personnel availability permit, computer simulation of combined search techniques will be undertaken. We envision that in the future, additional methods of determining coverage factor and POD of the search will be developed.

Even if you haven't understood all the details presented above, all searchers, whether conducting visual or electronic search, must remember:

1. There always is the possibility that a search object will not be detected even though it is well within the sweep width.

2. There is always the possibility that a search object will be detected even though it is beyond the sweep width (but inside the maximum range of detection). **oe**

Refs: National SAR Manual
Guide for Visual and Electronic Search, August 1985
Sweep Width Determination for HU-25B Airborne Radars, September 1989, Report No. CG-D-01-90

USE OF EMERGENCY KILL SWITCHES

By: LT Wes Driver, G-NRS-2

A study on the need and use of emergency kill-switches aboard Coast Guard small boats determined there is no "one size fits all" solution to this issue.

Commandant (G-NRS), in consultation with many nonstandard boat users identified several situations where engine kill-switches can jeopardize safety and mission effectiveness by inadvertently causing engine failure at critical moments. Examples include: personnel recovery operations in surf or heavy seas, law enforcement, shipboard launch and recovery, and departing docks and slips. However, the benefits of incorporating the use of engine kill-switches into routine operating practices are obvious: serious injury to personnel can be avoided or minimized when coxswain ejections occur.

Lanyard release engine kill-switches should be installed on all nonstandard open cockpit boats and used by coxswains as standard operating practice. Prudent coxswains will disarm these safety features when operational situations require the coxswain be free to leave his station unencumbered by the engine kill-switch tether.

The following suggested policy is provided. Commandant (G-KSE) will publish MISHAP Summary Messages for incidents in which kill-switches may have prevented injury or property damage.

SUGGESTED POLICY FOR USE OF KILL-SWITCHES

1. Kill switches shall be used on all nonstandard open boats. This includes tiller-steer, outboards skiffs, and inflatables of all horsepower ratings. Boats with helm stations enclosed in cabins are exempt.

2. When worn, the kill-switch lanyard should be firmly attached to the coxswain's PFD or exposure suit.

3. Kill-switches should be tested monthly according to the manufacturers procedures, and by attaching the lanyard to the operators PFD and backing away until the clip pulls free. If the engine does not stop or the lanyard parts, correct as necessary.

4. Spare kill-switch clips should be readily available in case the operator falls overboard or the clip breaks. A spare clip should be prominently stowed in a location as near the switch as practical.

5. Kill switches shall be used for routine underway transits. Coxswains may elect to disconnect themselves from the kill-switch during specific evolutions such as, personnel recovery operations, law enforcement boardings, shipboard launch and recovery, and when getting underway or mooring. Coxswains and boat crews should routinely practice boat drills while using kill-switches. All personnel who crew boats equipped with kill-switches shall know how to install spare kill-switch clips.

6. Kill-switch installations shall be done in accordance with standard marine practices using standard marine hardware. os

ADOPTION OF SUGGESTIONS FROM IDEA EXPRESS

By: LT Wes Driver, G-NRS-2

G-NRS receives many beneficial suggestions for evaluation. It is our intention to routinely publish the Ideas we have approved (both optional and mandatory). If additional information is needed to implement any of these suggestions, contact LT Wes Driver at FTS 267-1590.

USE OF A TRANSOM SAVER

A device is currently available that secures outboard engine lower units in the up position. This removes the strain from the tilt locking device and keeps the skeg from hitting the ground when trailering. The cost is about $25 and takes only minutes to install.

SMALL BOAT LEADLINE

An excellent idea suggested that leadlines carried on small boats be shortened from 150 feet. A reduction to 70 feet with standard markings makes use and stowage easier. The next changes to our standard boat type manuals and the Boat Crew Seamanship Manual will include this improvement.

"AHA!"

LIFE RING DROGUE

The need to protect polypropelyne line and include a built in drogue resulted in an Idea Express to build line bags. This was approved for optional use on cutters Coast Guard wide.

DISPOSABLE 35MM CAMERA

The infrequent need for a camera on small boats and the high cost of replacement makes the standard 35MM camera cost prohibitive. New advances in photography have provided the option of carrying an inexpensive, disposable camera. The disposable camera provides quality pictures, without the need for camera replacement. Units are encouraged to use disposable cameras in place of standard 35MM cameras.

CARRYING CHILDRENS PFD'S ON STANDARD SMALL BOATS

Originally UTB and MLB allowances did not include children size Personal Flotation Devices. Child size PFD's have been added to the allowance and will become mandatory with the next change to the UTB and MLB handbooks. os

406 MHZ EPIRB's---Properly Registered, THEY REALLY WORK!!!

By: LT Brian L. Krenzien, Atlantic Area Operations Center

One of a number of services provided to the mariner by the Rescue Coordination Center (RCC New York), located at Coast Guard Atlantic Area Headquarters, Governors Island NY; is to be a clearing house for initial unlocated distress signals initiated by 406 MHZ beacons registered to all U. S. vessels. When a vessel equipped with a 406 MHZ EPIRB activates the beacon anywhere in the world, the signal is immediately picked up by geo-stationary satellites in orbit over the Atlantic and Pacific Oceans. Although these satellites cannot calculate a position of the EPIRB because the SARSAT system works on a doppler shift principle (which requires a satellite not in geo-stationary orbit), the signal is down-loaded to the NOAA-USMCC (National Oceanographic and Atmospheric Administrations - U. S. Mission Control Center) in Suitland, Maryland. The NOAA-USMCC processes the signal, identifies the beacon, and forwards registration information associated with the activated beacon to RCC New York and our West Coast counterpart RCC Alameda (USCG Pacific Area Headquarters). Upon receipt of the registration data, RCC New York and/or RCC Alameda immediately activates the Search and Rescue response system by attempting to contact persons listed in the registration data to insure the safety of the vessel. Many times, we are able to find the vessel safely inport or in no distress. The EPIRB had been accidentally activated. The signal is secured and the case closed.

In the early hours of 21 September 1990, this was not the case for the F/V SILK RIDGE, a 55 foot Snapper boat on a fishing trip off the coast of Louisiana with three people onboard. On that first night of Autumn, the weather was relatively mild in the Gulf of Mexico. Seas were 2-3 feet and there was a light breeze out of the Northeast. What beautiful weather for a peaceful fishing trip. Sometime around midnight, the voyage became a life-threatening adventure for the crew of the SILK RIDGE when they discovered they were taking on water and unable to keep up with the flooding. As the water rose above the shaft, the crew decided they needed Coast Guard assistance, but the onboard radio was inoperable. As the situation deteriorated, the master activated their 406 MHZ EPIRB. The geo-stationary satellite received the EPIRB's signal, complete with registration data, and down linked it to the USMCC. The subsequent alert message was received by RCC New York, nearly 1000 NM away within minutes. Pre-communications inquiries were initiated by Chief Quartermaster David Cooke, the Assistant Controller on Watch. The Eighth Coast Guard District Operations Center in New Orleans, LA was notified after Chief Cooke verified the vessel was indeed underway off the coast of Louisiana. CCGD8 placed a Coast Guard Air Station New Orleans helicopter on alert and commenced a broadcast to try to locate the vessel. Within an hour, a second satellite in polar orbit transmitted the area, picked up the EPIRB's signal and calculated a "First Alert" position of 29-04.4N and 088-51.1W. By 0230, the M/V CHANDELEUR EXPRESS, an oil rig supply boat, was alongside F/V SILK RIDGE and established communications with the Eighth District Operations Center. By 0315, the New Orleans helicopter was on scene and had successfully passed de-watering pumps to the CHANDELEUR EXPRESS for use aboard the SILK RIDGE. Before 0400, the flooding was under control and the situation had been stabilized. SILK RIDGE eventually dewatered herself and arrived at her homeport on the morning of 22 September under her own power. Her crew a little tired, maybe a little frightened, but definitely alive.

Had the SILK RIDGE had a "regular" 121.5 EPIRB or a 406MHZ EPIRB without having the proper registration data included, the Coast Guard

may not have been alerted to her situation until 0230 when a second pass from a satellite gave the Eighth District a definite position of the vessel**. Nobody knows what condition the vessel and her crew would have been in by that time, or how long it would have taken to assist the vessel. Because the master or owner had taken the five minutes to properly fill-out the registration card, Coast Guard and commercial units were responding to the vessel's distress less than one hour after the EPIRB was activated.

THE 406MHZ EPIRB WORKS IF IT IS PROPERLY REGISTERED AND USED. ENCOURAGE BOATERS TO REGISTER THEIR EPIRB'S SO THEY CAN HELP US TO HELP THEM. ⚓

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*JuJ**Coast Guard Operations Centers normally wait for two or more of these passes to "double-up" and calculate a "composite solution" prior to acting on any 121.5 MHZ EPIRB case because there are so many false alerts on 121.5MHZ caused by interference and instability. In 1989 alone, the Eighth district (which covers most of the Gulf of Mexico) received a total of 1604 first alerts. Only 469 (29%) of those doubled up to become a "composite solution", and only 4 of those turned out to be vessels in actual distress.*

SARMIS AND YOU

By: Ms Sue Holden, G-NRS-1

QUESTION: "I enter all this information into SARMIS and forward it off to the district, what do I get out of it?"

ANSWER: I'm sure most of you think entering all this information into SARMIS is just a waste of time, you never see it again, you don't use it. Well, what's it used for? The information doesn't go into some big database in the sky or get dropped off into a "bit bucket" along the way. Nor does it end up in the hands of some computer nerd up at headquarters that says he/she has all the answers and they're here to help! SARMIS data is one of the primary tools for determining the placement of units and other resources, program budgetary needs, responding to congressional inquiries and even determining the number of boats you now have! The information is shared with other divisions and agencies and provides us with "the big picture" of SAR activities nationwide. We keep ten years of information online for trend analysis and we even export the data to another computer for forecast modeling. So you see, the information you enter is important.

"OK, that's great for you HQ types but what about me?" "I need to know more specific information about my piece of the Coast Guard."

Well, there is hope. I, Ms Sue Holden, am here in Headquarters to answer any questions concerning your unit's information in SARMIS. I can provide you with density plots illustrating the location of cases in your operating area, show you where lives have been lost and tell you all about your unit's stats. A simple rapidraft or letter signed by the CO, Group Commander, or OinC is all you need. The letter should be sent to Commandant (G-NRS-1) outlining your request in detail. Please include a name and phone number in case there are questions concerning your request. If you are not sure we can provide what you need, give me a call at FTS 267-1089 to explain your specific needs. I have at my disposal Fiscal Years 1980 to 1989 complete and hopefully, with the new SARMIS DSS, we'll soon

have the Fiscal Year 1990 data.

A request for information may look like something like this:

> "Request you provide a density plot which includes only MLB cases from May through September for Fiscal Years 87 - 89 individually for Station Fire Island, NY. Since these plots are to be used for a briefing, please provide color tranparencies."

NOTE: Private citizens seeking SAR information should be directed to forward their requests under the Freedom of Information Act. Procedures for submitting these requests are contained in the Privacy and Freedom of Information Acts Manual (COMDTINST M5260.2). o/s

SEARCH PLAN EVALUATORS COURSE PROTOTYPED AT CGAS CAPE COD

By: LCDR Gerry Donohoe, National SAR School

The resident courses at the National SAR School currently focus on training district and group watchstanders in the methods of search planning developed in the National SAR Manual and CG Addendum. A rising tide of interest in providing a "hands on" course for SAR supervisors and on scene search personnel has led to the recent development of the SAR Plan Evaluators Course. Students are trained in much of the same curriculum as the watchstanders course but without the extensive lab and exercise work. They learn how the SAR System is implemented, when to use various search planning procedures, and why on scene conditions and other factors can change the search plan. The target audience for the course are personnel filling SAR planning supervisory billets such as Group Commanders, Deputies or OPS Officers, and personnel executing search action plans such as Airsta OPS Officer, SDO's/pilots, and WPB/WTGB/SES CO, XO and OPS. CG Auxiliarists in Flotilla Commander and Training Officer positions are a welcome addition to the student population. Air Station Cape Cod hosted our inaugural class during the week of 5-9 Nov 1990. Three SAR School instructors provided training for 28 students including 10 Airsta, 9 Group, 6 CGAUX, 2 Station and 1 WPB personnel. The course was held in the banquet room of the newly constructed Golf Course Club House. CAPT. Paul Garrity, CO CGAS Cape Cod, opened the training session by highlighting the opportunity for all participants to share their SAR related experiences and establish an understanding of each others mission requirements and capabilities. CAPT. Bud Breault, D1(osr), gave the graduation address and shared many of his personal SAR experiences, demonstrating that proficiency in SAR planning and execution can make a tremendous impact on mission success. The next planned course convening is 13-17 May 1991 at CGAS Clearwater. The curriculum is presently under revision due to the policy changes issued by the recent revision to the CG Addendum to the National SAR Manual. Questions or comments on the course can be addressed to SAR School, LCDR Gerry Donohoe, FTS 827-2575.

STATION STAFFING AND TASKING

By: CDR RICHARD E. TINSMAN, (G-NRS-1)

Several weeks ago, the Commandant directed that a specially assigned team of program experts be formed to redefine the Coast Guard's expectations and mission requirements for small boat stations.

Coastal "SAR" stations have evolved into multi-mission commands where SAR is only one of several primary missions being performed. Carried out by crews whose sizes and resource needs have traditionally been, and continue to be, determined primarily by SAR readiness requirements, the Coast Guard continues to place an extraordinary work load on our station personnel. In a memo to the Coast Guard Chief of Staff, RADM Appelbaum, former Chief, Office of Navigation Safety and Waterway Services, cited that "Demands on our stations require that we more fully consider all aspects of both watchstanding and non-watchstanding workload created by multi-mission tasking". In his concluding remarks, RADM Appelbaum indicated, "After all is considered, I feel that the full solution to the station staffing problem will have to include; reducing workload (both operational and administrative), changing the way we do business, and/or adding more people."

RADM Appelaum recommended, and the Chief of Staff concurred, that a study group be established to evaluate all possible alternatives for solving the workload/manning mismatch that exists at many of our stations.

On 3 January 1991, the Commandant, Vice Commandant, and Chief of Staff met with members of the newly formed study team to express their personal concerns and extreme interest in the Team's undertaking. ADM Kime closed the meeting emphasizing his "commitment to improving the effectiveness of our service and need to fully support our personnel".

The study team members represent the major program with tasking or support responsibilities for stations. The team has been aggressively attacking this issue since the first of the year, applying "Total Quality Management (TQM)" principle and concepts in their approach. The Commandant's TQM concept, provides for the Coast Guard's pledge to serving the public (our customers) with the best possible service. A major requirement of TQM is participation in problem solving by those who

know the most about why problems exist (our field personnel) – our customers. Moving rapidly to develop a quantifiable analysis and decision making process, the team has determined that a Headquarters based study affecting the "field", must have significant and diverse input from field units.

The study team has divided its efforts into data gathering; analysis; and, reporting phases. The first phase (data gathering) is currently underway, with data gathering visits to stations scheduled to occur during the first two weeks in March. Stations have been selected based on valid statistical requirements (a stratified random sampling) and will include field visits to about one third of all Coast Guard small boat stations. Additionally, visits will be made to district and group offices to ensure that chain of command structures and resources are included and maintained.

The purpose of all of these visits is to gather information, assemble the problems in one box, review effects, and sort out Coast Guard wide issues from those problems that might be site or station specific.

Study Team members will be sensitive about coming aboard stations and being perceived as gurus or evaluators. They will not be evaluating stations or individual personnel performance. The Team, is solely interested in having station personnel express their thoughts on problems, concerns, frustrations, particularly ideas for solutions and thoughts for improving services to our customers. The team also wants input on those areas that are working well, so that the good can be emphasized while the problems are eliminated.

There are many problems being faced by stations and station personnel. Although there have been many efforts to resolve the problems, problems persist and in some cases, keep getting worse.

When the Team visits stations in early March, station personnel are encouraged to be open, candid, and positive about identifying and hopefully recommending solutions for problems. The Commandant and all others involved in this project are committed to fixing the workload/staffing mismatch at stations

An extraordinarily dedicated and knowledgeable team of program experts has been assembled to work on this project. Direct and extensive field input is critical to the success of the study. How well the ideas are accepted and implemented will vary dependent on how logical, workable, and practical the ideas are.

The study team welcomes thoughts and ideas from all sources. The ability to solve our stations major problems lies in our ability to define and reach toward solutions. Contact can be made to any team member. As well, the Coast Guard's Idea Express has become a valuable program for getting good ideas implemented.

Below is a list of team members.

CDR Tinsman (G-N) Team Leader

CDR Norwood	(G-RST)	CDR Wetters	(G-TPP)
LCDR Adams	(G-MPS)	LCDR Beaston	(G-OLE)
LCDR Blackadar	(G-OCU)	LCDR Kinner	(G-ODO)
LCDR Marshall	(G-OAV)	LCDR Lewandowski	(G-NRS)
CWO Miller	(G-NRS)	LT Patterson	(G-PWP)
CWO Malone	(G-ENE)	BMCM Bunch	(G-NAB)
CWO Spencer	(G-NSR)	Mr. Heatley	(G-PRF)
Mr. MacCarttee	(G-ECV)	CWO Rittenhouse	(G-ENE)

Search & Rescue Division (G-NRS)

TELEPHONE: FTS 267-XXXX COMM (202) 267-XXXX FAX 267-1057

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Asst Chief	CDR H. G. Ketchen	1085	NRSa/G-NRS
Secretary	Ms. W. M. Foster	1948	W.FOSTER/G-NRS
Secretary	Ms. T. L. Stevenson	1896	T.STEVENSON/G-NRS
Secretary	Ms. M. V. Murrell	1943	M. MURRELL/G-NRS

G-NRS-1: PROGRAM BRANCH

Branch Chief, R&D Liaison, Area Liaison	CDR S. R. Osmer	1581	NRS-1/G-NRS
Maritime Asst. Policy, D11, 13, 17, & Group Liaison / Mgr.	LCDR M. J. Lewandowski	1589	M.LEWANDOWSKI/G-NRS
Station Staffing QAT	CDR R. E. Tinsman	2275	R.TINSMAN/G-NRS.
SAR School, SAR Manual, D1, 2, 8, 9 & Groups Liaison / Mgr.	LT R. R. Schaefer	1559	S.SCHAEFER/G-NRS
Budget Coordinator, Planing Analyst	Mrs. P. M. Batt	2869	P.BATT/G-NRS
SAR ADP / IRM Systems Coordinator	LT S. R. Godfrey	1579	S.GODFREY/G-NRS
SAR Statistics, Data Analyst, Computer System Mgr.	Ms. S. M. Holden	1054	S.HOLDEN/G-NRS
SARMIS, E-MAIL, SAR Data Coordinator	LT P. H. Geddes	1089	P.GEDDES/G-NRS
SAR Facilities Database	ENS A. S. Leath	1586	A.LEATH/G-NRS

G-NRS-2: FACILITIES BRANCH

Branch Chief	CDR J. R. McGuiness Jr.	1592	NRS-2/G-NRS
Asst. Branch Chief, Resource Mgr. D9	LCDR D. F. Breuninger	1591	D.BREUNINGER/G-NRS
Resource Mgr. D11/13/14/17, 47' MLB, 30' SRB, 44' MLB, NMLBS	LCDR M. A. Monteith	1584	M.MONTEITH/G-NRS
Resource Mgr. D1, 5, 7, 8, 41' UTB Sys 41' STAN TEAM,Boat Records	LT W. E. Driver	1590	W.DRIVER/G-NRS
ON SCENE Mag	ENS J. J. Szrama	1876	J.SZRAMA/G-NRS
Boat Crew Professionalism, Training Manuals, Qualification Guides	CWO J. P. Miller	2868	J.MILLER/G-NRS
Rescue & Survival Systems Mgr.	CWO M. O. Hyde	1585	M.HYDE/G-NRS

G-NRS-3: COORDINATION BRANCH

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AMVER	Mr. J. D. Lombard	1552	J.LOMBARD/G-NRS
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The deadline for submitting articles to appear in the next issue of ON SCENE is 15 MAY 91. Please try to keep them under three pages if at all possible. If you submit an article for publication and have it typed on the standard terminal, it will save us typing time. Copy the submission on a 5-1/4" or 8" floppy disk and mail it with a printed copy. ***Pictures are most welcome.*** *Please tell us if you wish the disk to be returned. Arrangements can also be made to accept articles over a modem.*

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